

WHAT IS CLAIMED IS:

1. A system for translating packets comprising:
a translator that parses packets into narrow cells;
a first group of one or more transceivers; and
a second group of one or more transceivers, wherein said translator is coupled to said first group of one or more transceivers and said second group of one or more transceivers.
2. The system of claim 1, wherein said translator further parses narrow cells into packets.
3. The system of claim 1, further comprising:
one or more memory pools that store one or more packets and narrow cells; and
one or more reference clocks that synchronize one or more operations of said translator.
4. The system of claim 1, further comprising:
an administration module that provides a user with control over said one or more operations of said translator.
5. The system of claim 1, wherein said translator comprises:
one or more packet decoders that parse one or more packets into information fields; and
one or more cell encoders that construct one or more narrow cells from said information fields.
6. The system of claim 1, wherein said translator comprises:

one or more cell decoders that parse one or more narrow cells into information fields; and

one or more packet encoders that construct one or more packets from said information fields.

7. The system of claim 1, wherein said translator operates with packets in a parallel configuration and narrow cells in a serial configuration.

8. A narrow cell format comprising:
a header that includes a special character and control information; and
a payload that includes data.

9. The narrow cell format of claim 8, wherein said control information includes routing addresses for said payload.

10. The narrow cell format of claim 8, wherein said header is four bytes and said payload is thirty-two bytes.

11. The cell format of claim 10, wherein said header reserves one or more bytes for additional information.

12. In a bus translator, a cell format comprising:
a special character that indicates the start of a cell;
control information that includes slot information and state information of said cell; and
a payload that includes data.

13. A method for translating packets into cells, comprising:
determining a port type wherein said port type includes the configuration of packer processing components;

selecting a cell format, wherein said cell format is dependent on said port type;

receiving one or more packets from a port;

parsing one or more packets into information;

formatting said information into one or more cells; and

forwarding said one or more cells to an interface.

14. The method of claim 13, further comprising:
storing said information prior to said formatting step.
15. The method of claim 13, wherein said receiving step involves packets in a parallel configuration.
16. The method of claim 13, wherein said forwarding step involves cells in a serial configuration.
17. A method for translating cells into packets, comprising:
receiving one or more cells;
parsing said one or more cells into information;
storing said information into one or more packets; and
forwarding said one or more packets.
18. The method of claim 17, further comprising:
queuing said one or more cells; and
synchronizing said one or more cells, wherein said queuing step and said synchronizing step occur prior to said parsing step.
19. The method of claim 17, wherein said receiving step involves cells in a serial configuration.

20. The method of claim 17, wherein said forwarding step involves packets in a parallel configuration.

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